

1. (Amended) A method of enhancing the immunogenicity of an antigen in a mammal, the method comprising:

B1 administering to the mammal intramuscularly, intravenously, transdermally or subcutaneously, a fusion protein comprising an immunoglobulin heavy chain constant region linked by a polypeptide bond to the antigen thereby to elicit an immune response against the antigen, wherein the antigen is selected from the group consisting of a prostate-specific membrane antigen, an ectodomain of a cytokine receptor, a viral protein and a tumor-specific protein, and the antigen of the fusion protein elicits a stronger immune response in the mammal than the antigen alone.

2. (Amended) The method of claim 1, further comprising administering the fusion protein in combination with an adjuvant in an amount sufficient to enhance the immune response against the antigen of the fusion protein relative to the immune response against the antigen of the fusion protein administered without the adjuvant.

B2 15. (Amended) A composition for eliciting an immune response against an antigen in a mammal, the composition comprising an admixture for intramuscular, intravenous, transdermal or subcutaneous administration selected from the group consisting of:

(a) an antigen fusion protein comprising an immunoglobulin heavy chain constant region linked by a polypeptide bond to the antigen admixed with an adjuvant, wherein the antigen is selected from the group consisting of a prostate-specific membrane antigen, an ectodomain of a cytokine receptor, a viral protein and a tumor-specific protein; and

(b) an antigen fusion protein comprising an immunoglobulin heavy chain constant region linked by a polypeptide bond to the antigen, wherein the antigen is selected from the group consisting of a prostate-specific membrane antigen, an ectodomain of a cytokine receptor, a viral protein and a tumor-specific protein, admixed

B2  
cont. with an adjuvant fusion protein comprising an immunoglobulin heavy chain constant region linked by a polypeptide bond to an adjuvant protein.

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B3 18. (Amended) The composition of claim 15 or 16, wherein the immunoglobulin heavy chain constant region comprises an immunoglobulin hinge region.

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B4 26. (Amended) The composition of claim 15 or 16, wherein the immunoglobulin heavy chain constant region is defined by a amino acid sequence corresponding to an amino acid sequence defining a human immunoglobulin heavy chain constant region.

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46. (New) A method of enhancing the immunogenicity of an antigen in a mammal, the method consisting essentially of:

B5 administering to the mammal intramuscularly, intravenously, transdermally or subcutaneously, a fusion protein comprising an immunoglobulin heavy chain constant region linked by a polypeptide bond to the antigen thereby to elicit an immune response against the antigen, wherein the antigen of the fusion protein elicits a stronger immune response in the mammal than the antigen alone.

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